

IN THE CLAIMS

1-12. (cancelled)

13. (currently amended) A method for digital signing of a message which is transmitted via a communication network to a signing unit, comprising:

transmitting from a transmitter a message to be signed to a first receiver;

transmitting the message to be signed from the receiver via a telephone network to a mobile radio telephone comprising a signing unit, the telephone network comprising a mobile radio telephone network, the mobile radio telephone associated with the telephone network;

signing the message to be signed via the mobile radio telephone, thereby forming a signed message, the signed message signifying a user's intent to deliver the signed message and its content;

transmitting the signed message to at least one of the first receiver and at least one other receiver; and

communicating the signed message to an addressee.

14. (previously presented) The method according to Claim 13, wherein a public-key process is used for signing, particularly a public-key process in which said signing unit has an associated secret key and, in particular, the receiver has a corresponding public key so that the signed message transmitted to the receiver can, optionally, be compared with the original message and identified as authentic.

15. (previously presented) The method according to Claim 13, wherein the message to be signed is transmitted between the receiver and the mobile radio telephone by means of a short-message service (SMS).

16. (previously presented) The method according to Claim 13, wherein, prior to signing, the message to be signed is displayed by means of a display provided in the mobile radio telephone.

17. (previously presented) The method according to Claim 14, wherein the secret key required for signing is inputted via keyboard on the mobile radio telephone.

18. (previously presented) The method according to Claim 14, wherein the secret key required for signing is stored on a chip card of the mobile radio telephone, the secret key being activated by a personal identification number (PIN) adapted to be inputted via a keyboard on the mobile radio telephone.

19. (previously presented) The method according to Claim 18, wherein the chip card performs said signing step.

20. (previously presented) The method according to Claim 18, wherein the mobile radio telephone performs said signing step and wherein the secret key is read from the chip card.

21. (previously presented) A signed message created by the process of Claim 13.

22. (previously presented) A method for digitally signing, by means of a signing apparatus, a message to be transmitted to a receiving device, characterized in that the message to be signed is transmitted from a transmitting device to a receiving device, this message is then transmitted from the receiving device via a telephone network to a signing apparatus associated with the transmitting device, this message is then signed in the signing apparatus and transmitted back to the receiving device as a signed message.

23. (previously presented) The method according to Claim 22, wherein the signing apparatus is a mobile telephone.

24. (previously presented) The method according to Claim 23, wherein the telephone network is a mobile telephone network.

25. (previously presented) The method according to Claim 22, wherein a public key process is used for signing, especially a public key process in which the signing apparatus has a private key allocated to it and the receiving device has the corresponding public key associated with the private key.

26. (previously presented) The method according to Claim 24, wherein the messages between the receiving device and the mobile telephone are transmitted by means of a short message service (SMS).

27. (previously presented) The method according to Claim 22, wherein the message is represented before signing by means of a display device provided in the signing apparatus.

28. (previously presented) The method according to Claim 25, wherein the private key necessary for the signing is input via a keypad device of the signing apparatus.

29. (previously presented) The method according to Claim 22, wherein the private key necessary for the signing is deposited in a chip card of the signing apparatus, and the private key is enabled by means of a private number (PIN) which can be input via a keypad device of the signing apparatus.

30. (previously presented) The method according to Claim 29, wherein the chip card generates the signed message.

31. (previously presented) The method according to Claim 29, wherein the signing apparatus generates the signed message and wherein the private key is read from the chip card.

32. (previously presented) The method according to Claim 22, wherein the signing apparatus serves in addition as a transmitter to transmit the signed message to the receiving device.

33. (previously presented) A chip card for a mobile telephone, wherein the chip card incorporates a signing device which has a memory unit for storing a private key necessary for producing a signed message, characterized in that the signing device generates the signed message from a message to be signed which is received by the mobile telephone via a telephone network.

34. (currently amended) A method for transport via a communication network of a message to a mobile phone and transport of a corresponding signed message, said method comprising:

transmitting from a transmitter a message to be signed to a first receiver;

transmitting the message to be signed from the first receiver via a telephone network to a mobile radio telephone whereat the message to be signed may be signed, and when signed, generates a corresponding signed message;

transmitting the corresponding signed message from the mobile radio telephone to at least one of the first receiver and at least one other receiver; and

communicating the corresponding signed message to an addressee.

35. (previously presented) The method of Claim 34, wherein a public key process with a secret key and a public key is used, the secret key being used to produce a signed message and the receiver optionally using the public key to authenticate the signed message, said authentication being done by obtaining the message to be signed from the signed message for comparison to the original message to be signed that was sent to the mobile radio telephone.

36. (previously presented) The method of Claim 34, wherein the message to be signed is transmitted between the receiver and the mobile radio telephone by means of a short message service (SMS).

37. (previously presented) The method of Claim 34, wherein the receiver provides a gateway function for interoperability between a protocol for the transmitting from a transmitter a message to be signed to a receiver and a protocol for the transmitting the message to be signed from the receiver via a telephone network to a mobile radio telephone.

38. (previously presented) The method of Claim 34, wherein the at least one receiver provides a gateway function for interoperability between a protocol for transmitting the corresponding signed message from the mobile radio telephone to the some other receiver and a protocol for the communicating the corresponding signed message to an addressee.

39. (previously presented) A method, comprising:

    a mobile radio telephone user receiving a message from a telephone network;

    the user using the mobile radio telephone to generate a signed message corresponding to the received message; and

    the user initiating transmission of the signed message via the use of the mobile radio telephone into the telephone network so as to communicate the signed message to an addressee.

40. (previously presented) The method of Claim 39, wherein the generating of a corresponding signed message employs a secret key of a public key process to produce the signed message.

41. (previously presented) A method for operating a wireless device, said method comprising:

    receiving a message;

    displaying at least a portion of the message;

    accepting input from the user indicating the received message is to be signed;

    generating a corresponding signed message; and

    transmitting the signed message.

42. (previously presented) The method of Claim 41 wherein generating a corresponding signed message comprises executing a signing algorithm and using a secret key of a public key process, the algorithm and the secret key being stored in memory of the wireless device.

43. (previously presented) The method of Claim 42 wherein the memory for storing the algorithm is located within a chip card of the wireless device.

44. (previously presented) The method of Claim 42 wherein the memory for storing the secret key is located within a chip card of the wireless device.

45. (previously presented) The method of Claim 41 wherein the wireless device is a mobile radio telephone.

46. (previously presented) A wireless device for receiving a message to be signed and transmitting a corresponding signed message, said device comprising:

an antenna for receiving and transmitting messages;

a display for displaying a received message;

input apparatus for accepting input from a user indicating the received message is to be signed; and

memory for storing an algorithm for generating a corresponding signed message.

47. (previously presented) The wireless device of Claim 46 wherein said wireless device is a mobile radio telephone.

48. (previously presented) The wireless device of Claim 46 wherein said memory for storing an algorithm is located within a chip card of said wireless device.